

Title (en)

SYSTEM AND METHOD FOR WASTE HEAT RECOVERY IN STEEL PRODUCTION FACILITIES

Title (de)

SYSTEM UND VERFAHREN ZUR ABWÄRMERÜCKGEWINNUNG IN STAHLERZEUGUNGSANLAGEN

Title (fr)

SYSTÈME ET PROCÉDÉ DE RÉCUPÉRATION DE CHALEUR PERDUE DANS DES INSTALLATIONS DE PRODUCTION D'ACIER

Publication

EP 3749841 B1 20230614 (EN)

Application

EP 19705403 A 20190205

Priority

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Abstract (en)

[origin: WO2019151938A1] A system for recovery of thermal energy from a first closed cooling loop (5) for cooling skid pipes (2) in a steel production facility (1), said first closed cooling loop (5) comprising a circulation fluid which receives thermal energy from said skid pipes (2), and a cooling source (6), wherein said system comprises: means (17) for measuring the temperature (T) in said first closed cooling loop (5), and a power conversion module (10) configured to work in a closed loop thermodynamic cycle and convert thermal energy into electricity, wherein said power conversion module (10) is arranged in the first closed cooling loop (5) in fluid communication with the cooling source (6); wherein the power conversion module (10) further comprises a flow control system arranged to control input of thermal energy into said power conversion module (10), wherein said flow control system is arranged to cut off said cooling source (6) from said first closed cooling loop (5) when a measured temperature (T) in said first closed cooling loop (5) is below a first predetermined threshold temperature (TSTART), such that said circulation fluid is directed to a hot side of said power conversion module (10) only, to provide a thermal energy input into said power conversion module (10).

IPC 8 full level

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